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Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC 20554

SEP 18 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of:

)
)
 Amendment of Parts 2 and 25 of the
 Commission's Rules to Permit Operation of
 NGSO FSS Systems Co-Frequency with GSO
 and Terrestrial Systems in the Ku-Band
 Frequency Range;
)
)

ET Docket No. 98-206
 RM-9147
 RM-9245

)
 Amendment of the Commission's Rules to
 Authorize Subsidiary Terrestrial Use of the 12.2-
 12.7 GHz Band by Direct Broadcast Satellite
 Licensees and Their Affiliates; and
)
)

)
 Applications of Broadwave USA, PDC
 Broadband Corporation, and Satellite Receivers,
 Ltd. to Provide A Fixed Service in the 12.2-12.7
 GHz Band
)
)

**JOINT REPLY OF ECHOSTAR AND DIRECTV
 TO RESPONSES IN OPPOSITION TO
 PETITION FOR RECONSIDERATION OF SECOND REPORT AND ORDER**

Direct Broadcast Satellite ("DBS") providers EchoStar Satellite Corporation ("EchoStar") and DIRECTV, Inc. ("DIRECTV") submitted a Joint Petition for Reconsideration ("Joint Petition") on July 26, 2002, seeking reconsideration of various aspects of the Commission's *Second Report and Order* in the above-captioned case, which adopted technical rules for the implementation of a terrestrial fixed Multichannel Video Distribution and Data Service ("MVDDS") in the 12.2-12.7 GHz band ("the 12 GHz Band"). On September 3, 2002, responses to the Joint Petition were filed by MDS America, Incorporated ("MDS America") and Northpoint Technology, Ltd. and Broadwave USA, Inc. ("Northpoint") (collectively the "MVDDS proponents"). EchoStar and DIRECTV hereby jointly reply to those oppositions.

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I. The Technical Rules Fail to Ensure That DBS Carriers and Their Customers Will Be Protected From Harmful Interference

In the Joint Petition, the DBS providers demonstrated that Congress has expressly required the Commission to *ensure* that MVDDS transmissions will not cause harmful interference to DBS service. *See* Joint Petition at 2-3. The MVDDS proponents do not even attempt to refute that conclusion, but instead contend -- incorrectly -- that the technical rules as adopted achieve this congressionally mandated goal.¹

The Joint Petition showed that the technical limits on equivalent power flux-density (“EPFD”) do not, in fact, result in a maximum 10 percent increase in unavailability of DBS service, or even an approximation of that goal. *See* Joint Petition at 6-9. In response, the MVDDS proponents do not assert that the 10 percent standard is met by the proposed rules, but instead argue that the 10 percent test has no meaning, and should not be used in assessing the adequacy of the Commission’s rules for protecting DBS service from harmful interference.² The 10 percent increase in unavailability standard was not created by the DBS providers, however,

¹ The MVDDS proponents also allege that the Joint Petition is merely a “rehash” of old arguments that cannot justify reconsideration by the Commission. *E.g.*, Northpoint Response at 21; MDS America Response at 2-3. This position conveniently overlooks the fact that the technical and service rules for MVDDS were not adopted until the *Second Report and Order*, meaning this is the first opportunity the DBS providers have had to address the specifics of those rules. The fact that the criticisms of those rules in the Joint Petition echo certain points the DBS providers previously made regarding the general issue of authorizing MVDDS transmissions in the 12 GHz band does not mean that reconsideration is unjustified. On the contrary, the Commission specifically indicated in its prior order that it would adopt technical and service rules that would avoid an unwarranted increase in DBS unavailability, *see First Report and Order*, ¶¶ 267-68, and now must address petitioners’ contentions that the rules as adopted fail to meet that standard. *See* 47 C.F.R. § 1.106; *In Re Applications of Washington Broadcasting Co.*, FCC 99-252, ¶ 5 (rel. Sept. 23, 1999) (“We address this matter because NAACP did not have the opportunity to raise this issue prior to the Commission’s decision”); *see also Southern Nat. Gas Co. v. FERC*, 877 F.2d 1066, 1073 (D.C. Cir. 1989) (party demonstrated good cause for its failure to object when Commission did not raise issue until the second order).

² *E.g.*, Northpoint Response at 22-23; MDS America Response at 10-12.

but represents the result of years of careful study and analysis by the International Telecommunications Union (“ITU”), with the strong participation of the Commission itself. *See First Report and Order*, ¶ 268. While developed in the context of interference from Non-Geostationary Satellite Orbit Fixed Satellite Service (“NGSO FSS”), the 10 percent standard was clearly adopted against a background of measuring the maximum increase in unavailability that DBS could reasonably be expected to endure from other services.³ Moreover, the 10 percent standard seems to be precisely what the Commission had in mind when it issued the further notice of proposed rulemaking in connection with its *First Report and Order* in this case, *see id.* ¶¶ 268-69, and significantly, it is the standard expressly recognized by MITRE (the independent expert retained by the Commission to examine DBS-MVDDS sharing issues) as appropriate for the protection of DBS subscribers. *See* MITRE Report, § 6.3, at 6-6, ¶ 7. Neither the Commission nor the MVDDS proponents have provided an adequate basis for *discarding that standard entirely* in the technical rules as adopted.

The Commission’s inadequate EPFD limits cannot be saved from invalidity merely by invoking “deference” to the Commission’s discretion with respect to harmful interference. *See* MDS America Response at 6-10. First, the degree of deference normally due to a Commission determination with respect to spectrum sharing is tempered here by the express congressional

³ The ITU specifically found that a DBS operator “should be able to control the overall performance of a network, and to provide a quality of service that meets its C/N performance objectives,” and that, to allow this, “there needs to be a limit on the aggregate interference a network must be able to tolerate from emissions of *all other networks*.” Recommendation ITU-R BO.1444, *considering further* (a) and (b) (emphasis added). Notably, even applying a 10 percent increase standard to MVDDS, on top of the 10 percent increase permitted for NGSO FSS, results in *doubling* the permissible interference recommended by the ITU *from all sources*, which is itself extremely troubling. The DBS operators continue to urge the Commission to recognize that the 10 percent increase in availability should be an aggregate percentage that includes all terrestrial and satellite interference sources. However, the Commission’s proposed rules result in *tripling* or *quadrupling* the permitted degree of service disruption (if not more).

command that the Commission *ensure* that no harmful interference will be caused to DBS service.⁴ The Commission cannot circumvent this express congressional command simply by redefining “harmful interference” in such a way that DBS service is denied meaningful protection.⁵ Indeed, here the Commission has not even purported to define in the *Second Report and Order* what *would* constitute harmful interference, much less taken steps to ensure that it will not occur. There is thus no Commission determination to which a reviewing court could defer.⁶

In its opposition to other parties’ reconsideration petitions, Northpoint has asked in effect to have the Commission revisit the limit on effective isotropic radiated power (“EIRP”) of 14 dBm nationwide. Northpoint Response at 8-13. Even if it were not procedurally barred,⁷

⁴ See Rural Local Broadcast Signal Act, Pub. L. No. 106-113, Div B, § 2000(b)(2), 113 Stat. 1501 (Nov. 29, 1999) (“The Commission shall ensure that no facility licensed or authorized . . . causes harmful interference to the primary users of that spectrum.”).

⁵ As detailed in the Joint Petition, the rules do not take into account all existing satellite locations (including “wing” satellites), nor do they consider all (or even most) areas of the country where service is actually received. Joint Petition at 8 *and attached* Verified Statement of Edmund F. Petruzzelli (“Petruzzelli Statement”) at ¶¶ 4-11. Because of the over-simplified assumptions in the model, it is literally impossible to know by how much the 10 percent increase standard may be exceeded in particular cases.

⁶ MDS America expresses “surprise” that the DBS carriers have criticized the Commission’s so-called “safety valve” provision, under which DBS providers and customers can theoretically claim protection beyond the stated EPFD limits if they show a “tangible detrimental impact” from MVDDS transmissions. See MDS America Response at 8 n.20. The point of the DBS carriers’ criticism, however, was not that the safety valve is unnecessary, but that it is inadequate to save the validity of a flawed set of EPFD limits that cannot pass legal muster on its own. See Joint Petition at 17-18.

⁷ See *Matter of Amendment of Section 73.202(B)*, 16 FCC Rcd 2286 ¶ 6 (rel. Jan. 26, 2001) (“In essence, this pleading is an untimely petition for reconsideration that should have been filed within 30 days of publication of the Report and Order in the Federal Register.”); *Comark Cable Fund III v. Northwestern Indiana Telephone Co.*, 103 F.C.C. 2d 600 ¶ 39 (rel. Aug. 23, 1985) (“orderliness, expedition, and fairness in the adjudicatory process require that reasonable procedural limits be . . . maintained”) (internal quotations and citation omitted).

Northpoint's proposal is both unwarranted and contrary to the statutory mandate to prevent harmful interference to DBS service. The DBS operators have already responded in detail to MDS America's version of an "increased EIRP" proposal, which would have disastrous effects on DBS service.⁸ Ironically, Northpoint also criticizes the premises underlying MDS America's proposed EIRP increase, but nonetheless agrees with MDS America's "general point that the current EIRP limit restricts engineering flexibility and raised the costs of rural deployment for no good reason." Northpoint Response at 13.

Northpoint's advocacy of higher EIRP limits should be rejected, since the "good reason" for the Commission's current 14 dBm EIRP limit is the protection of DBS customers. Although Northpoint asserts that this limit rests on "shaky analytical and evidentiary foundations," *id.* at 10, Northpoint acknowledges (as it must) that the limit was initially suggested by MITRE after detailed analysis as one of several important measures intended to protect the DBS service from harmful MVDDS interference. MITRE concluded, in expressly addressing the issue, that, "as long as the MVDDS transmitter has an EIRP no greater than 14 dBm, then regions of interference on the ground will be relatively small." MITRE Report, § 2.2. at 2-8. After considering MITRE's conclusion on this point, the Commission agreed.

Other than criticizing the 14 dBm EIRP limit as too low, Northpoint provides no detailed analysis or any technical basis for suggesting that the Commission's conclusion as to the proper EIRP limit is incorrect. Given the Commission's mandate to ensure that DBS subscribers are protected from harmful interference, the Commission should not revisit this parameter.⁹

⁸ See Joint Opposition of DIRECTV, Inc. and EchoStar Satellite Corporation (Sept. 3, 2002), at 6-10.

⁹ Northpoint claims that the Commission should "reconsider its announced MVDDS power limit" because the "DBS industry. . .has not identified 'rain scatter' as a serious concern." Northpoint Response at 9. The statement is misplaced for several reasons. First, the

II. The Mitigation Rules Adopted by the Commission Are Both Inadequate and Impractical

As shown in the Joint Petition, the mitigation procedures as proposed fail to provide any protection at all to new customers whose DBS service commences more than 30 days after notice from the MVDDS provider regarding the location of its transmitter. *See* Joint Petition at 19.

Northpoint responds by arguing that the new customers of DBS providers are not entitled to any protection from harmful interference because doing so would allegedly violate the “first in time” principle. Northpoint Response at iv. Northpoint is in no position to avail itself of that principle, however, because of the “no harmful interference” proviso in the Commission’s regulations regarding the status of terrestrial fixed services in the 12 GHz Band. The manifest meaning of that proviso is that MVDDS service must accept, and cannot cause, harmful interference to the other users of that spectrum, including their future customers. Joint Petition at 4.

Northpoint’s suggestion that the “first in time” principle applies to individual customers, rather than the service as a whole, has no support in Commission policy or precedent. As Commissioner Martin appropriately observed in his separate statement, application of the “first

exacerbation of MVDDS interference that will occur in rainy conditions has been one of the fundamental and repeatedly stressed concerns of the DBS operators in this proceeding, as the record plainly demonstrates. Second and more generally, Northpoint completely mischaracterizes the analytical grounding of the lower EIRP limit, which is *not* merely confined to minimizing rain scatter. Indeed, MITRE recognized that one of the most important general operational parameters necessary to minimize MVDDS interference into DBS is “[k]eeping the MVDDS transmitter power as low as possible without sacrificing coverage requirements.” MITRE Report, § 6.2.1, at 6-2. In commenting on the MITRE Report, DIRECTV agreed that, in theory, lower MVDDS system power levels could help reduce harmful interference levels, but questioned whether the technique could ever serve as a realistic way to manage harmful MVDDS interference. Reply Comments of DIRECTV, Inc. regarding the MITRE Report (May 23, 2001), at 6. The DBS operators continue to have that concern. In fact, DIRECTV and EchoStar predicted that Northpoint and other MVDDS operators would have little incentive to maintain low transmit powers as a mitigation technique in spite of their “happy talk” to the Commission at the time, *see id.* at 6., and the advocacy by Northpoint and MDS America on reconsideration here of higher MVDDS transmit power demonstrates that the DBS operators’ prediction on this point was exactly right.

in time” principle to existing DBS customers only “is a significant departure from the established principle that new users of spectrum must not impede or interfere with existing uses that serve the public interest.” *See Second Report and Order*, 17 FCC Rcd. at 9820. The rule should not be applied to existing DBS customers, but to “the DBS licensees, which obtained their licenses first, and have already expended several billion dollars to construct, launch and run satellite systems that operate throughout the United States.”¹⁰ Northpoint’s alternative approach of reading “no interference” to mean that new customers need not be protected would set a terrible precedent that would resonate across all frequency bands and undermine the Commission’s overall spectrum management policies.

Similarly, the requirement that the DBS provider notify the prospective MVDDS operator within 30 days of the identities of new DBS customers should be overturned. In the Joint Petition, EchoStar and DIRECTV demonstrated that this requirement is unwarranted and unnecessarily invades both the privacy of the customers and the confidential proprietary information of the DBS carriers. *See Joint Petition* at 22. Significantly, in responding to MDS America’s suggestion that DBS providers identify DBS customers of record to prospective MVDDS operators within 45 days of receipt of notice of the transmitter site, Northpoint indicates that it “vigorously opposes this proposal,” noting that MDS America “inappropriately seeks access to competitively sensitive information without justification.” *Northpoint Petition* at 14. That same rationale applies equally well to the requirement in the rules for disclosure of the

¹⁰ *Id.*; see also *Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for Use by the Mobile Satellite Service, Second Report and Order and Second Memorandum Opinion and Order*, 15 FCC Rcd 12315, 21361 (2000) (“Under our first-in-time rule, the first co-primary licensee is entitled to protection from harmful interference by subsequent licensees.”).

identities of new customers who have DBS service installed within 30 days of the MVDDS operator's notice, for the reasons set forth in the Joint Petition.

Contrary to Northpoint's contentions, the mitigation problems arising once an MVDDS transmitter is installed cannot necessarily be alleviated merely through "natural shielding" or such artificial mitigation measures as "clip-on shields." Northpoint relies heavily on a study referenced in one of its earlier submissions purporting to show that "86% of DBS dish owners are naturally shielded due to a building, tree or other obstacle."¹¹ However, neither the Northpoint Response nor the cited source explains what is meant by this bare statistic. In particular, there is no indication whether the 86% figure refers to shielding from *all* MVDDS transmissions, or only to those originating from the north (*i.e.*, in accordance with the original "northpoint" concept). This ambiguity is particularly important now that the Commission has opened the door for MVDDS transmitters that may be oriented in *any* direction (not just toward "northpointing" receivers). *See Second Report and Order*, ¶ 202. Nor are "clip-on shields" a cure-all for the problems of harmful interference, for the reasons discussed in the Petruzzelli Statement.¹²

Another fundamental problem with Northpoint's response to the mitigation issue is that Northpoint essentially asks the Commission to assume (1) that Northpoint will necessarily be the

¹¹ Northpoint Response at 25, *citing* Comment of Northpoint, Exhibit 2, ET Docket No. 98-206 (Mar. 12, 2002) (referred to as "Mar. 12 Technical Appendix").

¹² *See* Petruzzelli Statement, ¶ 18. Significantly, the MITRE Report saw no reason to take natural shielding into account as a significant interference-mitigating factor, noting that "[i]f natural shielding were considered, [MVDDS system interference contours] would certainly enclose smaller areas. However, the same is probably even more true of the MVDDS service boundaries." MITRE Report, § 5.1.2, at 5-6. In other words, natural shielding, if it is present, will do more to reduce MVDDS system coverage than it will help in mitigating interference into DBS service. MITRE also noted that the real-world effects of "reflection, scattering and diffraction" tend to illuminate the "'shadows' cast by obstacles" and thereby reduce the effectiveness of any natural shielding. *Id.*

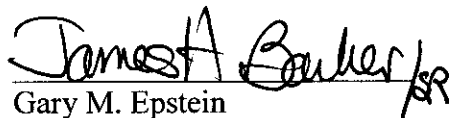
licensee for all MVDDS service nationwide, and (2) that Northpoint's much-vaunted technology will ensure that the prescribed EPFD limits are met "everywhere" without significant need for on-site mitigation measures. *E.g.*, Northpoint Response at 23. Neither of these assumptions has been shown to be valid.

Northpoint's argument that it alone is entitled to obtain licenses for all nationwide MVDDS service is without merit. As noted in the DBS providers' joint response to the petition for reconsideration of Pegasus Broadband, Inc., there is simply no basis for contending that the window for applications for MVDDS service was ever open, much less that it has already closed.¹³ Indeed, in its recent order denying Northpoint's motion to expedite its appeal, the U.S. Court of Appeals for the D.C. Circuit expressly ruled that Northpoint had failed to raise a "substantial challenge" to the Commission's order establishing an auction for the award of MVDDS licenses.¹⁴ Given that parties other than Northpoint may be licensed to provide MVDDS service, its assertion that its technology will meet the EPFD limits "everywhere" affords no basis for upholding the existing inadequate mitigation rules. Moreover, Northpoint has not demonstrated, nor has the Commission found, that Northpoint's technology will avoid harmful interference for all existing and future DBS customers, without mitigation measures of any kind.¹⁵

¹³ See Joint Opposition of DIRECTV, Inc. and EchoStar Satellite Corporation, ET Docket No. 98-206 (Sept. 3, 2002), at 11.

¹⁴ Order, *Northpoint Technology, Ltd. v. FCC*, Docket No. 02-1194 (D.C. Cir., Aug. 29, 2002) (denying Northpoint's motion for expedited briefing because, *inter alia*, Northpoint "failed to demonstrate . . . that the decision under review is subject to substantial challenge").

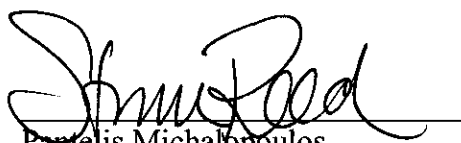
¹⁵ Northpoint correctly points out in its Response that the Commission did not adopt the *Second Report and Order* at a Sunshine Act meeting. Northpoint Response at 28. Given that fact, it may be that the Commission has not violated the technical parameters of the Sunshine Act. Nonetheless, the Commission's twelfth-hour substantive tinkering with critical interference protection criteria and related aspects of the order *after* its adoption and behind closed doors with



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no further input – including, for example, the significant changes involving the 10 percent increase in unavailability standard and other aspects mentioned in Commissioner Martin’s dissent, clearly violate the spirit of that statute. More directly, these circumstances contribute to the arbitrary and capricious decisionmaking manifested by the Commission on these aspects of the *Second Report and Order*.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served on September 18, 2002, via hand delivery (indicated by *) or by first class mail, upon the following:

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